City of San José, California

DRAFT CITY COUNCIL POLICY

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POST-CONSTRUCTION URBAN RUNOFF MANAGEMENT	**EFFECTIVE DATE**	**REVISED DATE**

REVISION APPROVED BY COUNCIL ACTION
Scheduled for Council Consideration in September 2011

PURPOSE

It is the purpose of this Policy to establish the City of San Jose's specific requirements to minimize and treat stormwater runoff from new development and redevelopment projects, consistent with the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (or "MRP"). The protection of local streams from pollution and high volumes of stormwater runoff contributes to the City's sustainability goals by ensuring good water quality, enhancing the beneficial use of local waterways, and enhancing the quality of wildlife habitat. This Policy is consistent with the City's Green Vision and Green Building Policies/Ordinances as the use of stormwater treatment measures result in associated energy and water conservation benefits.

BACKGROUND

The Federal Clean Water Act requires the City of San José to operate under a Municipal Stormwater NPDES Permit for the discharge of stormwater via the City's stormwater collection system. On October 14, 2009, the Regional Water Control Board adopted the Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) for the San Francisco Bay Region. In an effort to standardize stormwater management requirements throughout the nine county region, this permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 76 Bay Area municipalities, including the City of San José.

The Municipal Regional Permit mandates the City of San José to use its planning and development review authority to require that stormwater management measures such as Site Design, Pollutant Source Control and Treatment measures are included in new and redevelopment projects to minimize and properly treat stormwater runoff. The MRP requires that Low Impact Development (LID) techniques including infiltration, harvest and reuse, evapotranspiration, or biotreatment are used to manage stormwater, with the objective of maintaining predevelopment rates of infiltration, evaporation, and runoff from the property being developed. Treating stormwater as a resource, rather than a waste product is a central tenet of the MRP's LID requirements.

City Council Policy 8-14: Post-Construction Hydromodification Management (last revised February 23, 2010), is a related companion policy that addresses the management of stormwater runoff to minimize erosion and sedimentation in local rivers and creeks.

POLICY

Development Project Categories

This Policy requires development projects on vacant and previously developed properties (hereafter referred to as redevelopment) and road projects to manage stormwater based on the proposed land use and amount of impervious surface area being created and/or replaced by the project. The Policy provisions vary in accordance with the MRP project types that are categorized as follows:

1. **All Development Projects:** Site Design and Source Control Measures are Encouraged

   All new and redevelopment projects regardless of size and land use are encouraged to incorporate site design and pollutant source control practices in a manner consistent with the strategies set forth in this Policy. Pollution prevention measures shall be incorporated into development plans and maintained in perpetuity once constructed.

   Pollutant source control measures are of particular importance for automobile-related uses and industrial uses that involve the outdoor-handling and/or storage of materials with a greater potential to contaminate stormwater runoff.

2. **Projects Regulated by the Municipal Regional Permit (Regulated Projects):** Low Impact Development Treatment Measures are Required.

   All projects that create or replace 10,000 square feet or more of impervious surface shall use site design and source control measures and numerically-sized Low Impact Development (LID) stormwater treatment measures in accordance with the strategies set forth in this Policy.

   Beginning on December 1, 2011; Special Land Use Categories, which are defined as uncovered parking areas (stand-alone or part of another use), restaurants, auto service facilities and retail gasoline outlets that create or replace 5,000 square feet or more of impervious surface area shall use site design and source control measures and numerically-sized Low Impact Development (LID) stormwater treatment measures in accordance with the strategies set forth in this Policy.

   If the proposed project results in an alteration of more than 50% of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, then the entire project area must be brought into compliance with the current Policy.

3. **Small Projects:** Site Design Measures are Required.

   Beginning on December 1, 2012, new development and redevelopment projects that create or replace at least 2,500 but less than 10,000 square feet of impervious surface area are required to install one or more site design measures in accordance with provision C.3.i of the MRP. These measures include the use of permeable surfaces to construct sidewalks, walkways, parking areas and/or the direction of runoff into cisterns, rain barrels or vegetated areas.

4. **Detached Single Family Home Projects:** Site Design Measures are Required.

   Beginning on December 1, 2012, detached single family home projects, which are not part of a larger plan of development, and create or replace 2,500 square feet or more of impervious surface are required to incorporate one or more site design measures in accordance with provision C.3.i of the MRP. These measures include the use of permeable surfaces to construct driveways, walkways and patios, directing runoff to vegetated areas, or into cisterns, rain barrels.

Stormwater Management Strategies

The Policy establishes three primary strategies to manage stormwater runoff:

1) Minimize Runoff through Site Design (Quantity Control)
2) Prevent Polluted Runoff with Source Control
3) Treat Stormwater with Low Impact Development (LID)

These three strategies shall be implemented in the priority order set forth below with greatest emphasis placed on reducing the amount of runoff that must be treated by reducing the amount of impervious area that is directly connected to the storm drain system.

1) ***Minimize Runoff through Site Design (Quantity Control)*** – All "Regulated Projects" (per the MRP) shall use site design measures to reduce or minimize the creation of stormwater runoff through the preservation and creation of pervious areas that absorb rainfall and reduce runoff.

   At a minimum, one or more of the following site design measures shall be utilized to reduce stormwater runoff:

   - Minimize site disturbance by preserving the existing topography, significant trees, pervious areas and natural drainage patterns.
   - Utilize vegetated roofs and stormwater collection systems on all or a portion of existing and proposed roofs and podiums.
   - Avoid creation of underutilized surface parking lots by providing parking within structures and/or in an amount that does not exceed code requirements.
   - Utilize parking lift systems to increase the capacity of parking garages and carports to reduce the amount of impervious area needed for parking.
   - Utilize alternative pavement materials with a lower coefficient of stormwater runoff such as permeable pavements or porous pavers in the following locations:
     - Parking stalls
     - Pedestrian pathways
     - Emergency vehicle access lanes.
     - Parking Lots with infrequent, peak parking needs.

All new and redevelopment projects regardless of size and land use are encouraged to incorporate site design in a manner consistent with the strategies set forth in this Policy.

2) ***Prevent Polluted Runoff with Source Control*** – In addition to minimizing runoff, all "Regulated Projects" (per the MRP) shall include both structural and operational source control measures to prevent polluted stormwater runoff from entering into the City's storm drain system and creeks. These measures can be used to help avoid or reduce the need for on-site storm water treatment.

Pollutant source control measures include locating material storage and handling areas within structures, directing drainage from these areas into the sanitary sewer, the use of grade breaks, curbing, or berms to prevent polluted stormwater runoff form entering the storm drain system and labeling storm drain inlets and catch basins with a "No Dumping" message.

Land Uses of Concern

Source Control measures are of particular importance for automobile-related uses and industrial uses that involve the outdoor-handling and/or storage of materials which can potentially create contaminated storm water runoff. Source Control measures are required as part of the Planning Development permit process for a new or redevelopment project of any size that involve the following uses/ activities:

1) Car Washing and Detailing Facilities
2) Construction/Corporation Yards
3) Automobile Dismantling and Parts Recovery
4) Material Recycling Facilities(processing, transfer and large collection facilities)
5) Gas Stations or Equipment Fueling
6) Uncovered Parking Lots
7) Loading Docks

At a minimum, polluted stormwater runoff shall be prevented through the following source control measures that are applicable to a particular project:

- Industrial uses involving the storage and handling of materials that have the potential to generate polluted stormwater runoff shall be conducted indoors or under a permanent cover to prevent contact with rainfall.

- Vehicle repair uses shall be conducted indoors or under a permanent cover to prevent contact with rainfall or runoff.

- Trash and Recycling storage areas shall be enclosed and graded in accordance with City Trash Enclosure Guidelines. When appropriate, trash enclosures will be plumbed to a permitted connection.

- Vehicle or equipment fueling areas and loading docks must be covered and paved and the surrounding portions of the site graded to prevent stormwater runoff from contacting and conveying gasoline and other vehicle-related pollutants into the storm drain system.

- Restaurant activities including the handling and storage of grease, trash, and food waste need to be isolated from the storm drain system with measures that include the covering of waste handling areas and site grading to prevent stormwater runoff from and run on into these areas.

All new and redevelopment projects regardless of size and land use are encouraged to incorporate pollutant source control practices.

3) ***Treat Stormwater with Low Impact Development (LID)*** - For "Regulated Projects" (per the MRP), a Stormwater Control Plan is required that describes and illustrates the exclusive use of Low Impact Development (LID) measures to remove pollutants from stormwater runoff (per MRP C.3.d) before it enters the City's storm drain system. Stormwater TCM's must be sized to comply with one of the hydraulic design criteria listed in the MRP's Provision C.3.d. In accordance with provision C.3.of the MRP, LID Treatment fall within the following categories:

    1) Harvesting and reuse
    2) Infiltration
    3) Evapotranspiration
    4) Biotreatment (only if infeasible to implement harvesting and re-use, infiltration, or evapotranspiration)

The feasibility of particular LID practices shall be determined in accordance with the criteria and procedures set forth in the SCVURPPP C.3 Stormwater Handbook or within another City-approved guidance document. MRP section C.3.d. *Limitations on Use of Infiltration Devices in Stormwater Treatment Systems* includes requirements for a five inches/hour infiltration rate, 10-foot vertical separation from seasonal high groundwater and a prohibition of the use of infiltration measures for stormwater treatment for industrial uses.

Pervious areas, which are considered to be self treating, can be subtracted from the total impervious area from which runoff is required to be treated and for determining whether a project is a Regulated Project.

LID Treatment Reduction Credits

Alternatives to the exclusive use of LID measures for the treatment of all or a portion of a project's runoff is allowed to the extent to which a project qualifies for LID treatment reduction credits in accordance with the Special Projects provisions of the Municipal Regional Stormwater Permit.

Post-Construction Treatment Measure Tree Credit

A Post-Construction Treatment Measure Tree Credit will be provided pursuant to the SCVURPPP C.3 Stormwater Handbook or within another City-approved guidance document.

Trees required by the City of San Jose for tree removal mitigation, to fulfill City of San Jose street tree requirements, or to meet storm water treatment facility planting requirements will not count toward Post-Construction Treatment Measure Credit.

Planted trees approved for Post-Construction Treatment Measure Credit shall be maintained in a healthy state after construction and for the life of the development project.

ALTERNATIVE COMPLIANCE

Off-Site LID Treatment or Payment of In-Lieu Fee

All or a portion of a project's C.3 runoff can be treated with LID treatment measures jointly with an adjacent project or at an offsite location within the same watershed, pursuant to the MRP. In-lieu fees may be paid for the purpose of providing treatment at a regional project in the same watershed when a City-approved regional treatment project and funding structure exist.

OPERATION AND MAINTENANCE

All Post-Construction treatment measures must be installed as specified on approved construction plans. Treatment measures shall be operated and maintained by qualified personnel consistent with approved development plans and/or supplemental operation and maintenance plans. Property owners must ensure that treatment measures continue to operate effectively for the life of the project. Property owners and/or property managers designated by the owner must keep a maintenance schedule and record of all treatment measures maintenance activities. Copies of maintenance schedules and records will be retained and made available for inspection upon request by the City.

When used, all proprietary treatment measures must be operated and maintained per the manufacturers' specifications. The City may require additional maintenance beyond the manufacturers' specifications, if needed.

DEFINITIONS

Low Impact Development (LID): A land planning and engineering design approach with a goal of reducing stormwater runoff and mimicking a site's predevelopment rate of infiltration, evaporation; minimizing disturbed areas and impervious surface cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source, which treats stormwater as a resource, rather than a waste product.

Impervious Surface: A surface on a developed parcel that prevents the land's natural ability to absorb and infiltrate rainfall/stormwater. Impervious surfaces include, but are not limited to: roof tops, walkways, patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering.

Source Control Measures:

> **Structural Source Control Measures:** Are permanent development features that are designed and constructed as part of a project's pollution prevention measures, such as sanitary sewer connections for a restaurant's covered wash areas, and where said wash areas are sized large enough to wash the restaurant's largest piece of equipment.
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> **Operational Source Control Measures:** Are "good housekeeping" activities that must be conducted routinely during the post-construction operations of the project, such as dry sweeping or vacuuming of uncovered parked lots and the regular cleaning/removal of trash and debris from storm drain inlets, for effective stormwater pollution prevention.

Permeability: A property of soil that enables water or air to move through it. Usually expressed in inches/hour or inches/day.

Pervious Surface: Pervious surfaces include landscaped areas and permeable hardscape or paved surfaces, including pavement with pervious openings and seams (i.e., turf block, brick, natural stone, cobbles, gravel, etc., which are underlain with pervious soil, or a pervious storage material, such as a gravel layer sufficient to hold at least the Provision C.3.d volume of stormwater runoff) that allow surface runoff to infiltrate into the natural soil.

Site Design Measures: Site planning techniques to conserve natural spaces and surfaces and/or limit the amount of impervious surface in new development and significant redevelopment projects to minimize stormwater runoff from the site and the transport of pollutants in stormwater runoff.

Self-Treating Area: A portion of a development site in which infiltration and natural processes remove pollutants from stormwater. Examples of self-treating areas include conserved natural spaces, areas of landscaping, and areas paved with turf block. Self-treating areas are designed to treat only the rainfall and stormwater on those areas. They are not hydraulically-sized to treat stormwater runoff from other or adjacent impervious areas.

Significant Redevelopment Project: A project on a previously developed site that results in the addition and/or replacement of 10,000 square feet or more of impervious surface area. Interior building or structure remodeling, routine maintenance or repair, and exterior surface resurfacing or repaving are expressly excluded from this definition. Also excluded from this category are pavement resurfacing, repaving, and road pavement structural section rehabilitation within the existing footprint and any other reconstruction work within a public street or road right-of-way where both sides of that right-of-way are already developed.

Vegetated/Green Roof: Vegetated roof systems retain and filter stormwater runoff prior to drainage off building rooftops. For the purposes of calculating total impervious surface area, vegetated/green roofs are considered self-treating pervious areas.